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## A New Caecilian from Brasil<sup>1</sup>

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In reviewing the caecilians in the Institut für Spezielle Zoologie und Zoologisches Museum der Humboldt-Universität, Berlin, I noted a small caecilian which I regard as new and belonging to the recently described genus *Microcaecilia* Taylor. With the kind permission of Dr. Günther Peters, the curator of the collection, I describe this as

### *Microcaecilia supernumeraria* sp. nov.

(Figs. 1-4)

**HOLOTYPE.** Zoologisches Museum der Humboldt Universität, Berlin, No. 5268 from "São Paulo," Brasil, collected by "Haeckel." No paratypes.

**DIAGNOSIS.** A small caecilian reaching a known length of 258 mm; eye, covered solidly with bone, not usually visible externally; tentacular aperture considerably posterior to nostril in what would probably be a normal position of the eye in caecilians; first and second collars complete, each with a dorsal transverse groove. Primary folds 143; secondary folds, approximately 93; splenial teeth absent; maxillary teeth, 7-1-7. Scales relatively large, more or less visible externally under the edges of the folds. Scales begin near collars and form four or five rows in grooves of folds throughout much of body; subdermal scales relatively large, very numerous, widespread.

**DESCRIPTION OF THE HOLOTYPE.** When body is stretched (to eliminate sinuous curves of spine), specimen approximately 258 mm in length, the general width approximately 6.2 mm (posteriorly somewhat flattened and a little wider), width in length, approximately 41.6 times. Seen from above, head somewhat oval, narrow, short, relatively thick, the greatest width, 5 mm; the line of the mouth, seen laterally, strongly curving down anteriorly. Length of head from tip of snout to first nuchal groove, 6.2 mm; to the third nuchal groove (lateral measurement), 11 mm. Snout projects beyond mouth 1.2 mm.

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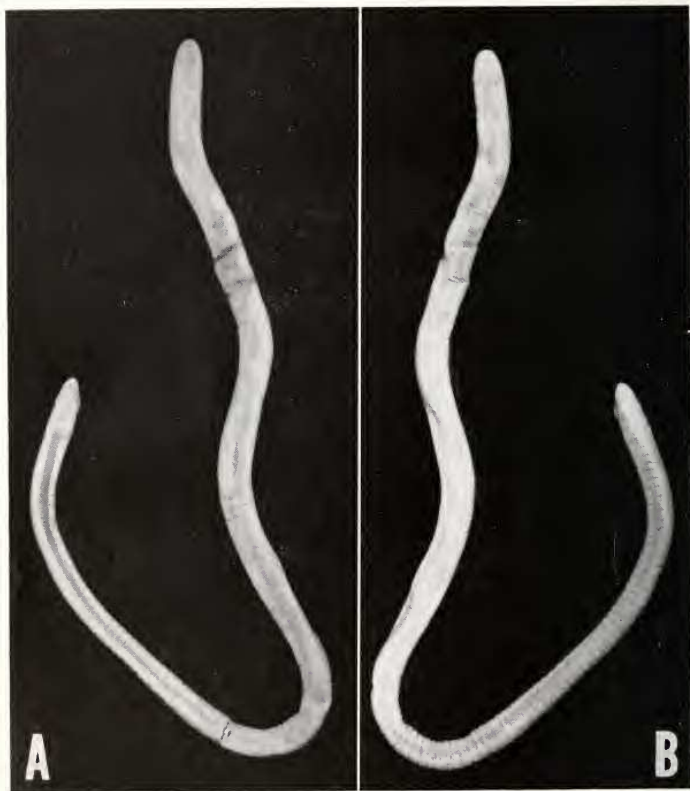


FIG. 1. *Microcaecilia supernumeraria* sp. nov. Zoologisches Museum der Humboldt-Universität, Berlin, No. 5268 from "São Paulo, Brasil". A. Ventral, B. Dorsal view. Total length of specimen, 258 mm.

Eye, if present, without socket and covered by bone. The tentacular aperture lateral, not or scarcely visible from directly above head, separated from nostril by a distance of 2 mm, its distance from edge of lip about 0.25 mm; nostrils far forward, not or barely visible from directly above head. Tip of snout rather rounded in lateral profile.

First collar distinctly delineated by two first nuchal grooves, both of which are distinct, surrounding neck. Short transverse groove on dorsal part of collar. Second collar likewise distinct save that it is fused for a short distance

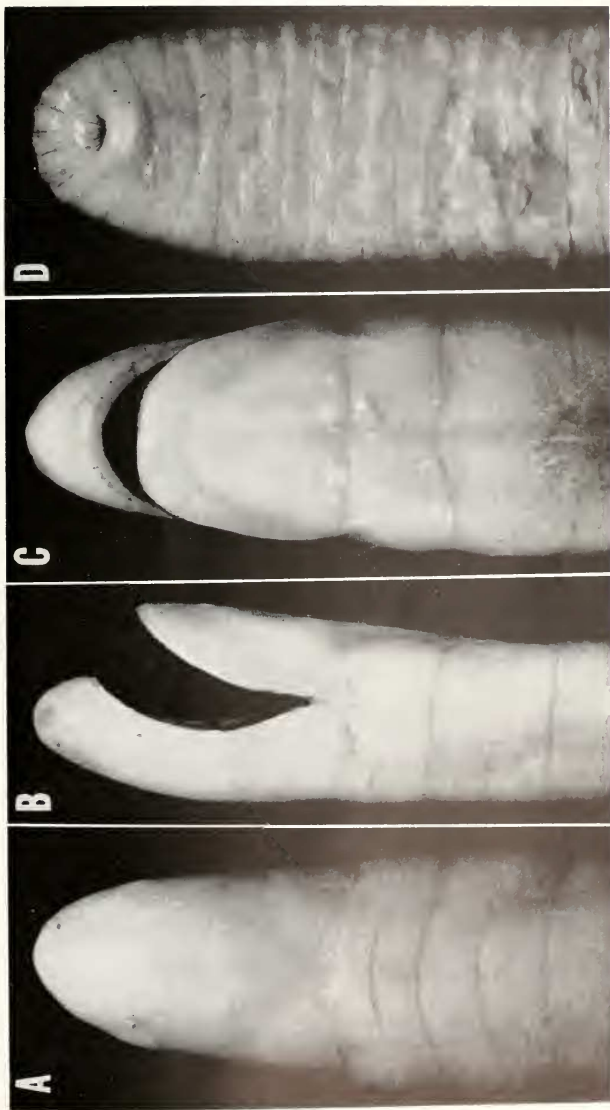


FIG. 2. *Microcaecilia supernumeraria* sp. nov. Type. A-C. Dorsal, lateral and ventral views of head. D. Ventral view of the terminal region. Greatest width of head at first nuchal groove, 5 mm.

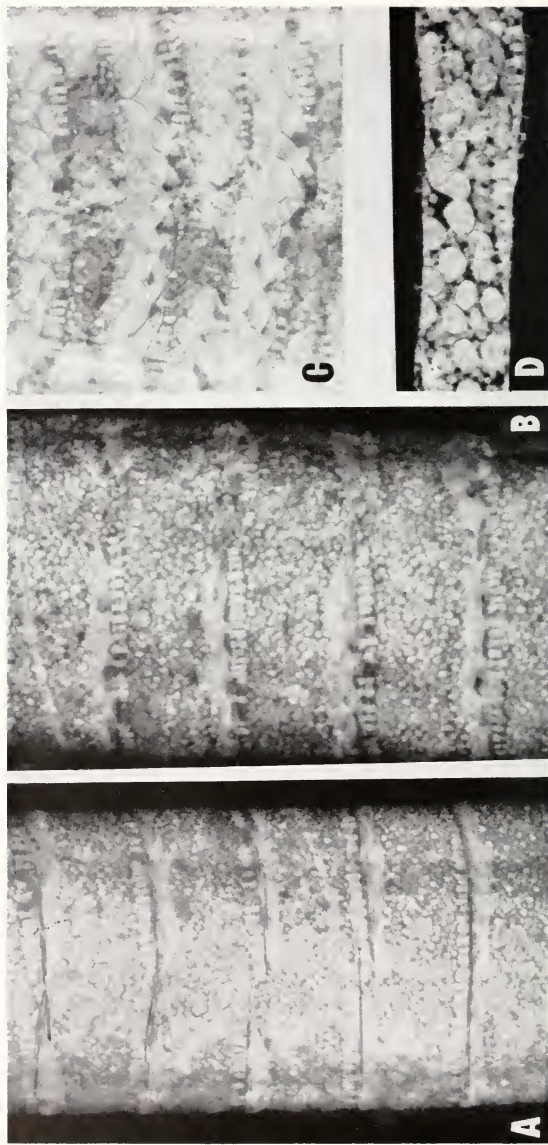


FIG. 3. *Microcaecilia supernumeraria* sp. nov. Type. Section of body near middle. B. Section of body posterior to middle. S. Section of body in last fifth showing scale rows visible externally. D. Section of connective tissue showing the subdermal scales in situ.

below with first primary fold; it bears a transverse groove dorsally. Following the collars are 143 primary folds, almost all completely surrounding the body; about 93 secondary folds, most of which completely surround body (slightly irregular posteriorly). No unsegmented terminal "shield," body terminus rather bluntly rounded seen from above, and flattened on its under surface. Vent transverse, the ends of terminal folds entering vent from behind. Denticulations at its edge not or scarcely discernible.

Scales begin at first primary fold. At first very small, transversely widened, the series however completely surrounding the body at fourth primary. At middle of body, scales a little larger, in four (or five) rows at least dorsally, but here nearly as large as in posterior folds; in last 2 centimeters of body, the scales usually in 4 imbricate rows in both primary and secondary grooves, the smallest scales forming uppermost row.

Aside from scales in the grooves, subdermal connective tissue scales present over much of body and these vaguely evident externally through epidermis when surface of body is dry. These relatively large, equalling those that may occur in much larger caecilian species.

While grooves have a row of elongate glandules arranged longitudinally which seemingly give rise to the scales in groove, subdermal scales seem to be produced from a glandule not greatly unlike the numerous glands of the epidermis and, like them, not incumbent.

*Dentition.* Teeth arranged in three series. Premaxillary-maxillary teeth, 7-1-7, forming a relatively short series not extending back as far as level of choanae; prevomeropalatine, 14-1-13; dentary, 11-11; splenial, 0-0; the anterior dentary teeth largest, the palatine series smallest.

Choanae rather large, the transverse diameter of one in distance between them about 1.5 times; tongue rather pointed at tip, free, lacking narial plugs.

*Measurements in mm.* Total length, approximately 258; width of head, 5; width of body, 6.2; width in length about, 41.6 times.

*Color.* The type is seemingly faded, the anterior part of the body light brown, the remainder light fawn to whitish; top and lateral surfaces of head cream to ivory white, lower jaws lighter than chin.

*Remarks.* When the preservative evaporates from the surface of the body, the grooves show a distinct white line caused by the white color of the scales appearing through the epidermis, and the intervening areas may be clouded with whitish from the subdermal scales which may become more or less visible also.

This form differs from the three other species recognized in this genus in having 40 more secondaries and 20 more primaries. In addition, both the typical scales of the folds and of the connective tissue are very numerous and relatively large, more numerous and larger than in other known species of the genus.



FIG. 4. Several large scales from *Microcaecilia supernumeraria* sp. nov., from posterior dorsal part of body. Largest scale about  $1.0 \times 1.35$  mm.

Subdermal scales may be present in other genera of the Caeciliidae. I have found them only in the genera *Oscacilia* and *Caecilia*. In *M. supernumeraria* these scales may attain a size of 0.3 to 0.35 mm; in *M. albiceps* they are usually smaller, 0.1 to 0.2 mm.

The genus *Microcaecilia* described by Taylor (1968, p. 532) (type species *Dermophis albiceps* Boulenger) is widespread in South America. Three species are known besides the one herein described. The oldest known form is *Microcaecilia unicolor* described by A. Duméril (1864) in the genus *Rhinatrema* (in his Fig. 7 it is called *concolor* by error). The type locality is Cayenne. Since that time it has been considered in the genus *Dermophis* or *Gymnopsis*.

A second species, *Microcaecilia albiceps*, was described by Boulenger (1882, p. 98, pl. 8, fig. 1) in the genus *Dermophis*, the type being from Ecuador. Subsequently it has been treated in both *Dermophis* and *Gymnopsis*.

More recently Roze and Solano (1963) described *Microcaecilia rabei* in the genus *Gymnopsis* from Southwestern Venezuela.

These forms agree in the following generic characters: eye, if present, concealed under bone, lacking an eye socket; tentacular aperture far from nostril in about what would be a normal position for the eye in a caecilian. The line of the mouth seen laterally curves down; the number of premaxillary-maxillary teeth generally reduced, the series not extending back to level of internal nares. The splenial teeth are entirely absent. Scales are present in the primary and secondary grooves at least in much of body; many connective tissue scales may be present.

*Microcaecilia albiceps* is not uncommon in eastern Ecuador but probably does not occur in the Pacific drainage of that country. *M. rabei* is known only from the State of Bolívar in Venezuela. *M. unicolor* occurs in Cayenne. I have referred to it one specimen from Río Oke, British Guiana (Guyana) although it differed from the type in having the maxillary-premaxillary teeth 17-1-17. Material from this area should be acquired and carefully examined, as I may have erred in so disposing of this specimen. I was unable to demonstrate the presence of subdermal connective tissue scales in the specimen.

The following brief key may serve to distinguish the four forms:

#### KEY TO SPECIES OF *Microcaecilia* Taylor

1. Head whitish (cream, fawn, grayish white, or yellowish) usually nearly uniform. Body plate ..... 2  
 Head not so colored ..... 3
2. Secondaries less than 70 (48-62); primaries, 115-123. Eastern Ecuador ..... *albiceps*  
 Secondaries more than 70 (94); primaries, 143; São Paulo, Brasil ..... *supernumeraria*
3. Body generally some shade of lilac, violet, or lavender, the head of a lighter shade of the same color; secondaries, 21-34; primaries, 108-117; Southeastern Venezuela ..... *rabei*  
 Body usually nearly uniform brown (possibly some shade of lilac or lavender in life); the head clouded with brownish; secondaries, 55-75; primaries, 98-118. French Guiana and British Guiana (Guyana) ..... *unicolor*

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